RECEIVED
CENTRAL FAX CENTER
NOV 06 2008

AMENDMENT TO THE CLAIMS

1. (Currently amended) A solid state imaging apparatus comprising:

a photoelectric conversion section formed in an imaging area of a silicon substrate, the photoelectric conversion section includes

a surface layer having a first conductivity type provided on a top portion of the silicon substrate,

a first semiconductor layer made of silicon having a second conductivity type, and service as a charge accumulation region, provided under the surface layer; and

a second semiconductor layer made of silicon having the first conductivity type provided under the first semiconductor layer;

an isolation region formed in at least one part of the silicon substrate located around the photoelectric conversion section ~~and made of an isolation material having a thermal expansion coefficient larger than silicon oxide and equal to or smaller than silicon~~ made of silicon material which fills an isolation trench formed on the semiconductor substrate;

a first silicon layer made of silicon having the first conductivity type formed in a region of the silicon substrate forming the bottom and sidewalls of the isolation trench; and

a second silicon layer made of silicon having the first conductivity type in contact with a bottom side of the first silicon layer,

wherein the photoelectric conversion section is in contact with the isolation region, the first silicon layer, and the second silicon layer, and

a depth of the isolation region is smaller than that of the first semiconductor layer.

2. (Cancelled)

Application No.: 10/571,426

3. (Currently amended) The solid state imaging apparatus of Claim [[2]] 1 further comprising an insulating film covering the bottom and sidewalls of the isolation trench.

4-5. (Cancelled)

6. (Currently amended) The solid state imaging apparatus of Claim [[5]] 1 further comprising a MOS transistor formed in the imaging area,

wherein the isolation material contains an impurity of the opposite conductivity type to source and drain regions of the MOS transistor.

7. (Currently Amended) The solid state imaging apparatus of Claim [[5]] 1, wherein the isolation material is made of amorphous silicon, polycrystalline silicon or porous silicon.

8. (Currently amended) A method for fabricating a CMOS (complementary-metal-oxide-semiconductor) solid state imaging apparatus having an N-channel type transistor, a P-channel type transistor, and a photoelectric conversion section, said method comprising the steps of:

forming an isolation trench by etching a region of a silicon substrate;

forming an insulating film to cover the bottom and sidewalls of the isolation trench;

after the formation of the insulating film, filling the isolation trench with a silicon layer; and

implanting an impurity into a predetermined region of the silicon layer.

wherein

during the step of implanting an impurity, a P-type impurity is implanted into a region between the N-channel transistors in the isolation region, and a region between the N-channel transistor and the photoelectric conversion section in the isolation region, and wherein

during the step of implanting an impurity, an N-type impurity is implanted into a region between the P-channel transistors in the isolation region, and a region between the P-channel transistor and the photoelectric conversion section in the isolation region.

9. (Original) The method of Claim 8 further comprising the step of making the silicon layer porous.

10. (Original) The method of Claim 8, wherein

the step of making the silicon layer porous includes the steps of:

attaching an electrode to part of the silicon layer; and

immersing, in a solution, part of the silicon layer excluding the part thereof to which the electrode is attached and then passing current via the electrode through the silicon layer.

11. (Previously presented) A camera comprising the solid state imaging apparatus according to Claim 1.

12. (New) The solid state imaging apparatus of Claim 1, wherein the silicon material contains no impurities.